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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/838,463	04/19/2001	Wadood Hamad	IP-6084	2092

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EXAMINER

ALVO, MARC S

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 12/12/2001

3

Please find below and/or attached an Office communication concerning this application or proceeding.

11618 3

Office Action Summary	Application No.	Applicant(s)	
	09/838,463	HAMAD ET AL.	
	Examiner	Art Unit	
	Steve Alvo	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 10-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claims 1-24 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- | | |
|---|--|
| 15) <input type="checkbox"/> Notice of References Cited (PTO-892) | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 20) <input type="checkbox"/> Other: _____ |

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Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-9 drawn to a process for making a paper formulating a mathematical model as a function of a plurality of variables, classified in Class 162, subclass 198.

II. Claims 10-24 drawn to a method for designing a paper machine, classified in Class 162, subclass 100.

The inventions are distinct and independent, each from the other because of the following reasons:

Group I does not require measuring the fracture roughness nor determining a second set of respective values nor manufacturing different grades of paper as required by Group II. Group II does not require formulating a mathematical model as a function of a plurality of variables as required by Group I.

Because these inventions are distinct and independent for the reasons given above and have required a separate status in the art as shown by their different classification restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Dennis M. Flaherty on 12-4-2001 a provisional election was made with traverse to prosecute the invention of Group II, claims 10-24.

Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-9 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 C.F.R. § 1.48(b) and by the fee required under 37 C.F.R. § 1.17(h).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 11, 13-15, 17, 19, 20 and 23 are rejected under 35 U.S.C. 103(a) as obvious over CHASE '403 in view of AHRENS et al.

CHASE '403 teaches using empirical methods and techniques of regression analyses to determine functional relationships between material properties and the strength of the paper for a grade of paper (column 14, lines 29-34). AHRENS et al teaches that fractional toughness measurements can be used to determine the strength of paper. It would have been obvious that the regression analyses to determine functional relationships between material properties of CHASE '403 could be related the fracture roughness of AHRENS et al as the fracture roughness is a measure of the paper strength. See Figure 1 of CHASE '403 for using caliper, basis weight,

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moisture (humidity), additives (column 9, line 35) and softwood ratio as the variables of CHASE '403. See CHASE '403 for monitoring the variables after a grade is identified and then providing output signals to control the strength or the fracture roughness of AHRENS et al.

Claims 12, 16, 18, 21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over CHASE '403 in view of AHRENS et al as applied to claim 10 above, and further in view of HART.

HART teaches automatic control of a paper machine and teaches using many if the same measurements used by CHASE '403, e.g. basis weight, caliper, moisture, and additives (82), (83) and (84) including filler (alum). It would have been obvious to the routineer that alum (filler) could have been one of the additives measured by CHASE '403 in the manner taught by HART.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over CHASE '403 in view of AHRENS et al as applied to claim 10 above, and further in view of PAGE et al.

CHASE '403 teaches controlling the strength during newsprint production (column 15, lines 42-57). PAGE et al teaches that the fracture resistance for different grades can be measured and used to determine which grade (product) is less likely to break during printing. This would represent the best strength for the grade to be to prevent breaks in the pressroom. It would have been obvious to control the variables of CHASE '403 to obtain the strength to prevent breaks as determined by PAGE et al

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Claims 10-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10, last line "first set" should be "second set".

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Any inquiry concerning this communication or earlier communications from the **primary examiner** should be directed to **Steve Alvo** whose telephone number is **(703) 308-2048**. The Examiner can normally be reached on Monday - Friday from **6:00 AM - 2:30 PM (EST)**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Stanley Silverman, can be reached on 703-308-3837.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Group receptionist** whose telephone number is **(703) 308-0661**.

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Carolyn E. Johnson, Marshall Gaddis, Bessie Bowie, Lucy Jones.



STEVE ALVO
PRIMARY EXAMINER
ART UNIT 1731

MSA
December 10, 2001